

**REMARKS**

Claims 9-13 are all the claims pending in the application.

**I. Preliminary Matters**

Applicants respectfully request that the finality of the present Office Action dated November 25, 2009 should be withdrawn because the Examiner has expressly failed to consider the patentability arguments presented in the most recently filed Amendment dated July 27, 2009.

As background, the Examiner had previously rejected present claims 1-9 under 35 U.S.C. § 103(a) as allegedly being unpatentable over McCormick et al. (6,611,096; "McCormick") in view of Saida et al. (JP11-189746; "Saida '746") in the Office Action dated March 27, 2009.

In the July 27, 2009 Amendment, Applicants traversed the above rejection with the following three primary arguments: (1) there is no motivation or suggestion to combine the polymer of Saida '746 with the anode buffer layer of McCormick; (2) the unexpected results of the present invention are derived primarily from the use of the present conductive polymer, of which Saida '746 provides no guidance or suggestion as to the resulting effects of employing this polymer; and (3) the present invention provides unexpectedly superior results compared to the buffer layer of McCormick. Additionally, Applicants amended claim 9 to recite the subject matter of claim 2, which was canceled as a result of the amendment.

In the present Office Action dated November 25, 2009, the Examiner does not provide substantive commentary on any of Applicants' arguments. Instead, the Examiner asserts that Applicants' arguments have been considered but are moot in view of the new rejection(s), and makes the Office Action final. See Paragraph 8, page 6 of the present Office Action.

Applicants respectfully submit the rejection was improperly made final because the Examiner did not address Applicants' arguments directed at traversing the rejection over McCormick in view of Saida '746.

Section 707.07(f) of the Manual of Patent Examining Procedure (MPEP) instructs that "where the [A]pplicant traverses any rejection, the [E]xaminer should, if he or she repeats the rejection, take note of the Applicant's argument and answer the substance of it." In the present Action, the Examiner repeated the rejection over McCormick in view of Saida '746 from the earlier Office Action dated March 27, 2009. The Examiner, however, failed to "answer the substance" of Applicants' arguments.

Instead, the only "answer" given by the Examiner in the present Action is that Applicants arguments are "moot" in view of the new grounds of rejection. Without further explanation as to what the "new rejection(s)" is or how the "new rejection" answers the substance of Applicants' previous arguments, the Examiner made the Action final nonetheless.

Applicants submit that the Examiner's actions are both improper and indicative of a deficient final Office Action for failing to satisfy the requirements of MPEP § 707.07(f).

In view of the above, Applicants respectfully request withdrawal of the finality of the outstanding Office Action.

## **II. Response to Rejection of Claims 9-13 under 35 U.S.C. § 103(a)**

**A.** Claims 9, 12, and 13 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over McCormick in view of Saida '746.

In the Office Action, the Examiner repeats her reasons for rejecting the claims from the previous Office Action dated March 27, 2009, which are not included herein for reasons of brevity.

**B.** Claims 9, 12, and 13 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over McCormick in view of Saida et al (JP10-168328; "Saida '328").

The rejection in view of Saida '328, is similar to the above rejection over Saida '746, however, whereas the rejection in view of Saida '746 was cited as teaching the self-doping polymer represented by formula (3), the rejection in view of Saida '328 is cited as teaching the self-doping polymer of formula (1).

The Examiner contends that Saida '746 and Saida '328 disclose formulas (3) and (1), respectively, both of which disclose examples (5-sulfoisothianaphthene-1,3-diyl, a random copolymer containing 5-sulfoisothianaphene-1,3-diyl in an amount of 80% by mass or more, poly (5-sulfoisothianaphthene-1,3-diyl-co-isothianaphthene-1,3-diyl or a salt thereof) similar to those of the present invention.

The Examiner concludes that it would be obvious to one of ordinary skill in the art to employ either the polymer of Saida '746 or the polymer of Saida '328 in the McCormick device to recreate the polymer for the anode buffer layer, coating solution, and organic light emitting device of claims 9, 12, and 13 of the presently claimed invention.

**C.** Claims 10-11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over McCormick, in view of Saida '746 as applied to claims 9, 12, and 13 above, and further in view of Takeuchi et al. (US 2004/0247934; "Takeuchi").

**D.** Claims 10-11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over McCormick, in view of Saida '328 as applied to claims 9, 12, and 13 above, and further in view of Takeuchi.

Applicants respectfully traverse the rejections A-D.

As discussed above in item **I.**, in the reply filed on July 27, 2009, Applicants traversed the Examiner's rejection of the claims over McCormick in view of Saida '746 in part based upon

a showing that the presently claimed invention provides unexpectedly superior results compared to the closest comparative example in the art, the buffer layer of McCormick. In the present Action, the Examiner did not discuss or address Applicants' showing of unexpectedly superior properties.

Applicants submit that Saida '328 does not supply the deficiencies of Saida '746 such that Applicants' evidence of unexpectedly superior properties still supports the unobviousness of the presently claimed invention. In this respect, Saida '328 is cited as teaching the polymer of formula (1), which is almost identical to the polymer of formula (3). As with Saida '746, Saida '328 provides no guidance or teaching that overcomes the deficiencies of Saida '746.

Pursuant to MPEP §716, a prima facie case of obviousness may be rebutted by the showing of unexpectedly superior properties of the claimed invention in the form of a direct or indirect comparison of with the closest related example prior art. *See* MPEP § 716.02(b). In the present case, the closest related comparative example in the art is the light emitting device of McCormick, comprising a self-doping polyaniline anode buffer layer instead of the anode buffer layer of self-doping polyisothianaphthene of the present invention.

In the present specification, Applicants compare the McCormick embodiment (Comparative Examples 3 and 4) is compared to the presently claimed invention (Examples 2 and 3). As can be seen from the results in Table 1 of the present specification, the presently claimed invention has a maximum luminance, maximum external quantum efficiency, and luminance half-time twice as high as compared to the closest related comparative examples in the art. Accordingly, Table 1 clearly evidences the superiority of organic light emitting devices employing the polymer of presently claimed formula (1).

Additionally, although relied upon by the Examiner to supply the deficiencies of McCormick, neither Saida '746 nor Saida '328 provides any teaching or guidance on using the

polymer of present formula (1) in the anode buffer layer. Further still, the object of Saida '328 is to improve mechanical properties such as flexibility and smoothness (see Paragraph [0005]), and thus, Saida '328 provides no guidance on improving the maximum luminescence, maximum external quantum efficiency or luminescence half-life properties as demonstrated in the present application. Accordingly, there is no teaching in either Saida '746 or Saida '328 that such properties could be improved by employing the polymer of either Saida reference in the device of McCormick.

In view of the above, Applicants submit that neither McCormick in view of Saida '746 nor McCormick in view of '328 discloses or renders obvious the subject matter of present claim 9.

With respect to rejections in view of Takeuchi indicated in items **C.** and **D.**, Applicants submit that the combination of Takeuchi fails to cure the deficient combination of McCormick and Saida.

Accordingly, because claims 10-13 depend from claim 9, it is respectfully submitted that these claims are patentable for at least the same reasons as claim 9.

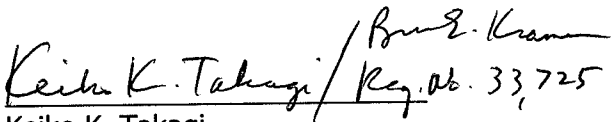
In view of the above, withdrawal of the rejections is respectfully requested.

### **III. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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